

## **Comments in support of disapproval of Proposal 09-139, Section 505.1 to the WSEC**

From Joe Andre, Washington State resident, representing himself.

[jfandre@verizon.net](mailto:jfandre@verizon.net)

206-930-9571 (cell phone)

I urge the Council to reject Proposal 09-139, New section 505.1 to the WSEC. I offer the following as substantiation for not mandating the use of compact fluorescent lamps.

The following is excerpted from IAEI NEWS, May-June 2009; used with permission. From the Article “ In the Dark about Green Lighting”. The selection is the complete discussion from the article on compact fluorescent lamps. The complete article may be viewed online at <http://www.iaei.org/magazine/?p=1765>.

About the author: Gersil N. Kay, IESNA, Conservation Lighting International Ltd., served four years as an appointed lighting designer on the national ASHRAE/IESNA/ANSI project committee on Standard 90.1. She can be reached at [glassfibreltg@mac.com](mailto:glassfibreltg@mac.com).

### **“Compact Fluorescents (CFLs)**

Contrary to current publicity, incandescent lamps cannot be completely replaced in all uses. In fact, much of the massive advertising for CFLs and LEDs does not appear to give complete data enabling the correct choice. The right selection cannot be done unless *all* of the properties are known about each type.

Recognizing the discrepancies, CFLs are just now being made for three-way applications, dimming ability and with a wider range Kelvin color selections.<sup>2</sup> If not instant start, they may be unsuitable and even unsafe for constant on–off uses. They could emit more damaging ultraviolet light (that fades irreversibly) than incandescent lamps, and they may not fit into existing fixtures. The fact that they require more manufacturing steps makes them much more expensive than incandescents.

The CFL lamps typically have a lower power factor (PF). Tungsten lamps are resistive with a unity (1.0) PF, but CFLs are normally at (0.50) PF lagging or leading, depending on the type of ballast used. This means that the like-for-like comparison normally given for CFLs is wrong, and volt/amperes, rather than watts, are the correct measure. CFLs take more current on a volt/ampere (VA) scale, so with greatly increased use, they may cause issues for power stations that are on a kilowatt (kW) basis. With extensive CFL use, the existing meters will not accurately reflect the more-than-anticipated current taken, which has an active (working) and reactive (non-working) component.

CFLs also generate harmful electrical noise, like harmonics (3rd, 6th, 9<sup>th</sup>, etc.) that could disrupt electric service under certain circumstances. Disposal of CFLs must be carefully done because they contain phosphors and mercury. CFLs can be voltage sensitive. If the line voltage drops below the stated voltage, the lamps could extinguish.”